

cmgh

CELLULAR AND MOLECULAR GASTROENTEROLOGY AND HEPATOLOGY

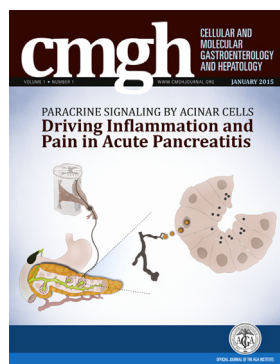
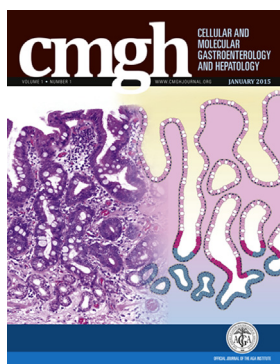
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J. R. Turner, J. R. Goldenring, R. G. Wells, and L. M. Brounstein

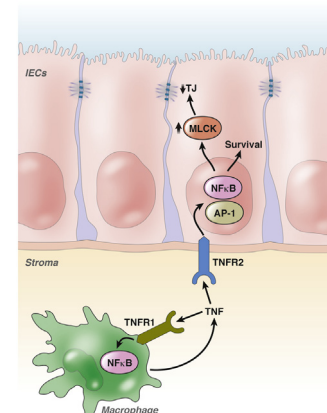
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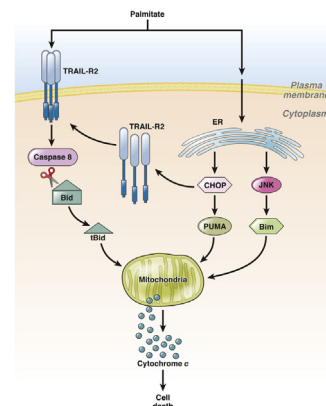
This review discusses recent data on immune signaling pathways involved in the pathogenesis of colitis-associated cancer. These include molecular mechanisms activating the innate and adaptive immune system and thereby contributing to cancer initiation and promotion in inflammatory bowel diseases.



17 Death Receptor-Mediated Cell Death and Proinflammatory Signaling in Nonalcoholic Steatohepatitis

P. Hirsova and G. J. Gores

This review discusses recent developments in our understanding of hepatocyte death receptor signaling and its mechanistic link to inflammation in steatohepatitis. Tumor necrosis factor-related apoptosis-inducing ligand receptor activation in hepatocytes during lipotoxicity induces release of proinflammatory extracellular vesicles, which, in turn, promote proinflammatory macrophage activation.



28 Microbial Activities and Intestinal Homeostasis: A Delicate Balance Between Health and Disease

C. L. Ohland and C. Jobin

This review discusses the equilibrium between host and microbial community in the context of health and disease. The focus is on bi-directional pressures between prokaryotes and eukaryotic cells, as well as inter-bacterial interactions resulting in alterations to the microbiota.

41 The Barrett's Gland in Phenotypic Space

S. A. C. McDonald, T. A. Graham, D. L. Lavery, N. A. Wright, and M. Jansen

This review addresses the scope of phenotypic diversity within Barrett's esophagus. Although often underemphasized, the authors argue that this diversity may be key to understanding Barrett's initiation and progression.

ORIGINAL RESEARCH

55 Antifibrogenic Effects of the Antimicrobial Peptide Cathelicidin in Murine Colitis-Associated Fibrosis

J. H. Yoo, S. Ho, D. H.-Y. Tran, M. Cheng, K. Bakirtzi, Y. Kubota, R. Ichikawa, B. Su, D. H.-N. Tran, T. C. Hing, I. Chang, D. Q. Shih, R. E. Issacson, R. L. Gallo, C. Fiocchi, C. Pothoulakis, and H. W. Koon

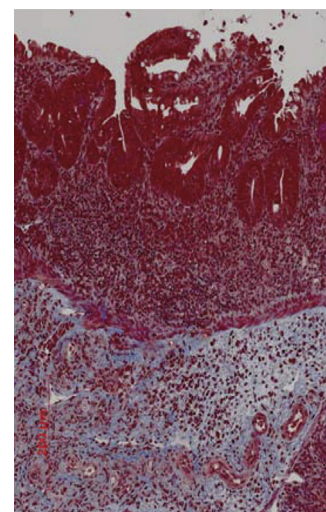
Administration of cathelicidin exerts effective antifibrogenic effects in colitis associated intestinal fibrosis. Cathelicidin inhibits transforming growth factor β 1-induced collagen expression in fibroblasts. The antifibrogenic effect is extracellular-regulated kinase pathway dependent.

See editorial, Vetrano S et al, on page 2

75 Acinar Cell Production of Leukotriene B₄ Contributes to Development of Neurogenic Pancreatitis in Mice

R. A. Shahid, S. R. Vigna, A. C. Layne, J. M.-J. Romac, and R. A. Liddle

The initiation of neurogenic inflammation in pancreatitis is unknown. This work shows that pancreatic acinar cells express 5-lipoxygenase and produce leukotriene B₄ (LTB₄). 5-lipoxygenase inhibition reduces LTB₄ secretion and pancreatitis, indicating that LTB₄ mediates neurogenic pancreatic inflammation.

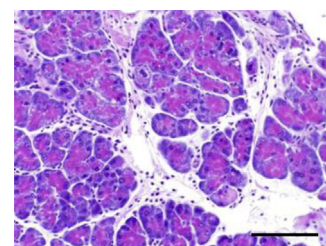


87 Enteric Neuron Imbalance and Proximal Dysmotility in Ganglionated Intestine of the Sox10^{Dom/+} Hirschsprung Mouse Model

M. A. Musser, H. Correa, and E. M. Southard-Smith

The Sox10^{Dom/+} Hirschsprung disease model exhibits imbalance of neuron subtypes throughout the intestine. These alterations suggest a novel role for Sox10 in neuron specification and, in light of negligible inflammation, likely contribute to deficits in gastric emptying and small intestine motility.

See editorial, Young HM, on page 4



102 Perivascular Interstitial Cells of Cajal in Human Colon

Y.-A. Liu, Y.-C. Chung, M.-Y. Shen, S.-T. Pan, C.-W. Kuo, S.-J. Peng, P. J. Pasricha, and S.-C. Tang

This work explores the association between interstitial cells of Cajal (ICC) and the microvascular network in the human colon wall using a novel high-definition three-dimensional microscopic approach. The authors propose the existence of a new subclass of ICC, the perivascular ICC.